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ABSTRACT

Computers and online services are becoming a part of children's lives. This guide is designed to introduce parents to the Information Superhighway and to parenting in a world of computers and new forms of media. Prepared by the Children's Partnership, with assistance from the National PTA and the National Urban League, this guide provides tools and rules for parents to use with children at home, at school, and in the community. The guide helps parents gain an understanding of the technology, learn what is at stake for them and their children, and how they can help their children reap the benefits of the information age. The following sections are included: (1) "What is the Information Superhighway?"; (2) "What's at Stake--Why Computers Matter to Your Child"; (3) "What Does Using Computers Actually Do for Your Child?"; (4) "When Is Your Child Ready?"; (5) "Have We Been Here Before?"; (6) "Some Basic Rules"; (7) "Setting Up To Go Online"; (8) "Alternatives to a Home Computer"; (9) "How Can You Find Good Places To Go and Things To Do Online?"; (10) "How Can You Keep Your Child Safe Online?"; (11) "At School--Getting Involved with Technology"; and (12) "Helping Ensure that All Children Have an On-Ramp." Includes appendices with resources for further help and a glossary. (Author/SWC)

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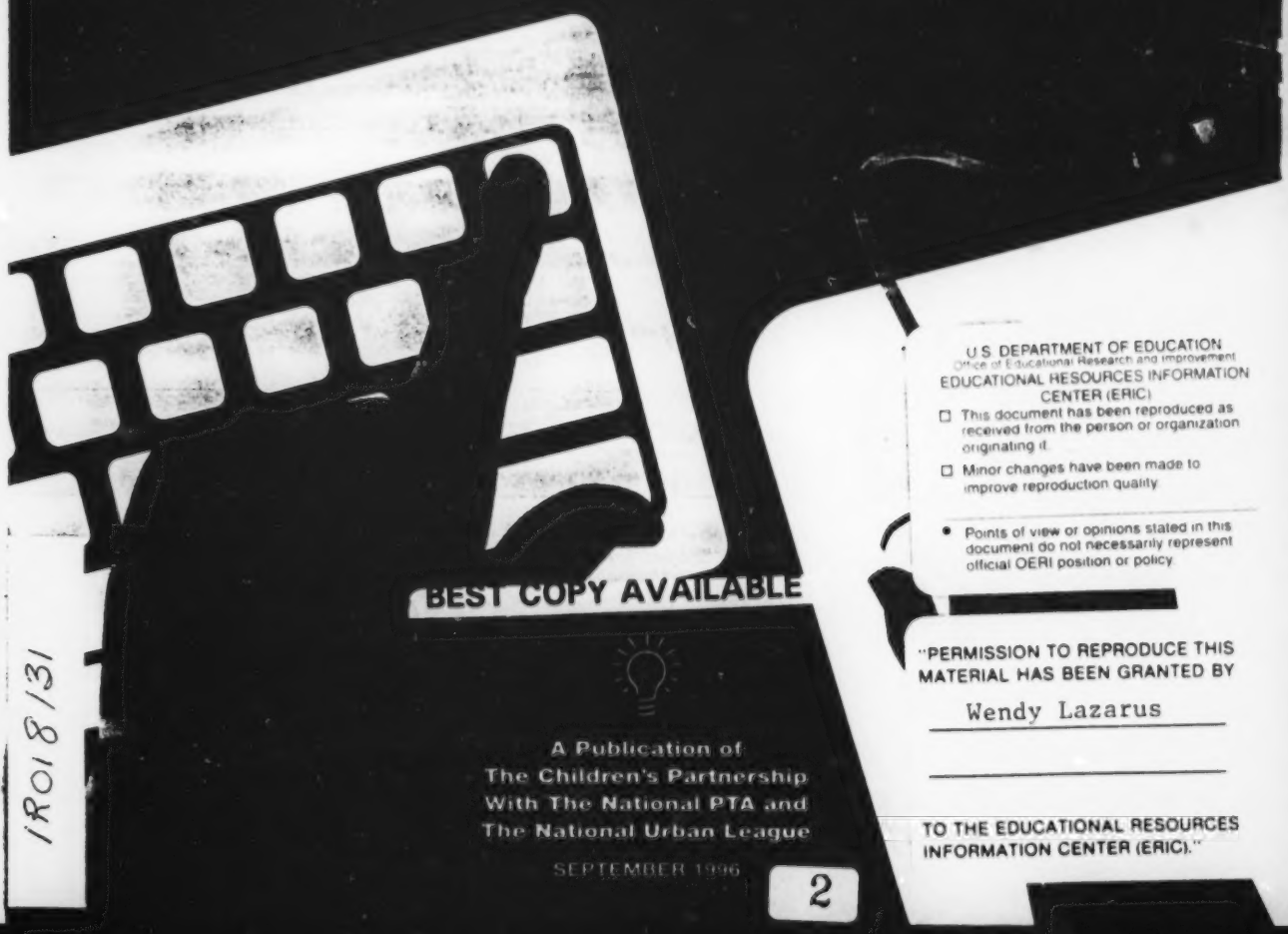
ED 401 872

The Parents' Guide to the Information Superhighway

RULES & TOOLS FOR FAMILIES ONLINE



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SEPTEMBER 1996

The Children's Partnership

The Children's Partnership is a national nonprofit, nonpartisan organization. Its mission is to inform leaders and the public about the needs of America's 70 million children, and to engage these leaders in ways that benefit children. The Partnership undertakes research and policy analysis, publishes reports and materials, develops multimedia campaigns, and forges new alliances among parents, policymakers, and the private sector to achieve tangible gains for children.

The Partnership focuses particular attention on identifying trends and emerging issues that will affect large numbers of children and on providing early analysis and strategies for action. In this way, it functions as a research and development (R&D) arm for the children's movement.

The work of The Children's Partnership is supported by private foundations, corporations, the entertainment community, interested individuals, and others with whom it partners on projects. These include The AT&T Foundation, The California Community Foundation, The California Wellness Foundation, The Carnegie Corporation of New York, The Joseph Drown Foundation, The Favrot Fund, The Robert Wood Johnson Foundation, The Henry J. Kaiser Family Foundation, Pacific Bell, The David and Lucile Packard Foundation, and The Streisand Foundation. The Children's Partnership has offices in Los Angeles and Washington, D.C.

Current Programs

America's Children and The Information Superhighway: A multi-year project exploring how the information superhighway and related technologies can best serve children.

Next Generation Strategies to Build The American Children's Movement: A program designed as a multi-year research, convening, and publishing program. Its mission is to provide community leaders, activists, foundations, and concerned citizens with timely and innovative tools to design effective long- and short-term strategies to advance and sustain a children's social agenda.

Children and Health Care Reform: A multi-year project to monitor changes in health policy and identify opportunities to improve health insurance coverage for children.

Publishing Ventures

The Children's Partnership researches and publishes analyses, called *Strategic Audits*, on select issues. In addition, *The Children's Information Service*, a national information service to provide timely bulletins about children's issues, is under development.

The National PTA

The National PTA is the largest volunteer child advocacy organization in the United States. Founded in 1897, today its nearly 7 million members are parents, teachers, students, and other citizens eager to work on behalf of children nationwide. The organization prides itself on being noncommercial, nonsectarian, and nonpartisan. Its members serve as child advocates in schools, in the community, and before government agencies. The National PTA builds partnerships with other health, education, and welfare organizations, both public and private, to develop national coalitions on children's issues. The organization also produces programs, publications, and training to help state and local PTAs encourage parents and families to become involved in their children's lives.

The National Urban League

Founded in 1910, the National Urban League is the premier social service and civil rights organization in America. The League is a nonpartisan, community organization headquartered in New York City, with 114 affiliates in 34 states and the District of Columbia. The mission of the National Urban League is to assist African-Americans in the achievement of social and economic equality. The League implements its mission through advocacy, bridge-building between the races, program services, and research.

The Parents' Guide
to the Information Superhighway

RULES AND TOOLS FOR FAMILIES ONLINE

SEPTEMBER 1996

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Foreword

Welcome to the Information Superhighway

That's the main message of this Guide. It's designed to welcome you, and give you a simple step-by-step introduction to parenting in a world of computers and new forms of media. This Guide will provide some tools and rules for you to use with your children at home, at school, and in the community.

The Parent Perspective

It seems overnight there's a whole new world for kids—and for you. From computers to **software** to the **Internet**—there are so many new things, yet little guidance for parents trying to figure it all out. *(Highlighted terms are defined in Appendix B, the Glossary, on pages 27-28).*

That's why we decided to write this Guide. We hope to:

1. Introduce parents to a new and changing media;
2. Help parents use commonsense parenting along with simple, practical tips about the new technology; and
3. Boost parents' confidence and jump-start their involvement to make sure that new media will truly benefit children.

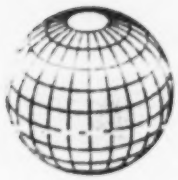
Who Is This Guide For?

This Guide is for parents who have begun to see that computers and **online** services will be or already are a part of children's lives at school or at home—and who are looking for some guidelines and advice. We have written it with the computer novice in mind, and have provided simple definitions and ideas for how to get involved. But we hope that parents who have already become online travelers will find useful tips as well. We recognize that it is not possible to meet the needs of every parent through one Guide. But hopefully this Guide provides a starting point for all parents to get involved and that, over time, materials for more specialized uses can be developed.

What Does This Guide Cover?

Working with the National PTA and the National Urban League, The Children's Partnership talked to dozens of parents. We found these most frequently asked questions, which this Guide sets out to answer:

- What is the information superhighway?
- What's at stake for my child?
- What does using computers actually do for my child?
- When is my child ready?
- How do I get started?
- How can I find good places to go online?
- How can I keep my child safe?
- How can I make sure my child's school is well-equipped?
- What's at stake for the nation's children?



This Guide focuses on computers and services that allow young people to go beyond their own computer at school or at home and link into a wider world. We focus on the "online" world—at this time mostly represented by the **Internet** and the **World Wide Web**—though other aspects of the superhighway are sometimes discussed.

While we try to give parents a brief survey of current technology, we have emphasized parenting strategies in a world where children and young people often know more than their parents. Although we don't focus on **CD-ROMs,** video games, or computer software, we do refer to them, and many of the parenting tips for being online also apply to these media.

Terms Used in This Guide

Along with this new era comes a blizzard of new terms. To help the reader, we have prepared a glossary of commonly used terms (see pages 27-28).

How to Use This Guide

The Guide can be used in two ways:

1. You can read it straight through and find a basic road map to the superhighway, along with road signs to other helpful information (see Resources in Chapter IV of this Guide); or

2. You can simply flip to the chapter that seems most useful to you.

In addition, a **Web site** for parents is available for those who are beginning to get online and want pointers to useful information beyond what's contained in this Guide (http://www.childrenspartnership.org).

Who Are We?

The authors are child advocates and parents. We have written this Guide to start at the beginning, where many parents find themselves, summarizing the best thinking and advice available. We have worked closely with the National PTA and the National Urban League to present accessible yet authoritative information. The Guide has also benefited from the good counsel of our advisors and reviewers who have provided much wisdom, the lessons from a great deal of diverse experiences, and technical expertise. The conclusions contained within are our own.

Last Word

The history of media, and television especially, has taught us some important lessons when it comes to children. First, media has a very powerful influence on young people. Second, without strong public attention to media issues, children's best interests are not adequately served. These lessons are especially important today, as a new information society is being created.

In addition to helping parents do the best for their own children, we hope that this Guide helps parents connect with institutions like the National PTA and the National Urban League as well as their local schools and community institutions to ensure that this new generation of media is good for all kids.

Wendy Lazarus and Laurie Lipper

DIRECTORS

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CHAPTER 1

Children Online: The ABCs for Parents

What Is The Information Superhighway?

The part of the **information superhighway*** that is most often referred to in the popular media is the **Internet.** Though actually only a part of the larger **National Information Infrastructure** (NII), the term "Internet" is sometimes used interchangeably with the "superhighway." "Going online" refers to getting connected to the Internet or other **commercial service,** usually via a telephone line.

**Highlighted terms are defined more fully in Appendix B, the Glossary, on pages 27-28.*

Internet

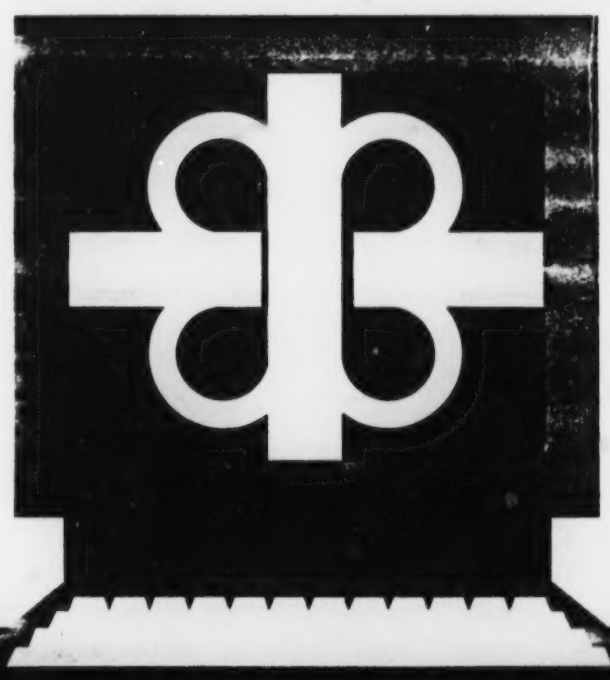
The Internet, sometimes called the **Net,** is a vast group of computer networks that spans the globe. It has many features but is generally a way to communicate, use information tools, and find boundless amounts of information from an unlimited number of sources.

The Internet makes possible a number of online functions such as **e-mail,** a way of sending messages electronically from one computer user to another, and **Bulletin Board Systems (BBS),** which are online locations that **post** information about particular topics or that connect people who share an interest.

There is unlimited information on the Internet, but it is like a big library without a card catalogue to help find what books you might be looking for. **Search engines** exist to help with this. With a search engine you can sort through vast amounts of online information to pinpoint the material you want. Search engines work by matching a key word you enter into the computer with the same word found in various information sites on the Internet.

World Wide Web

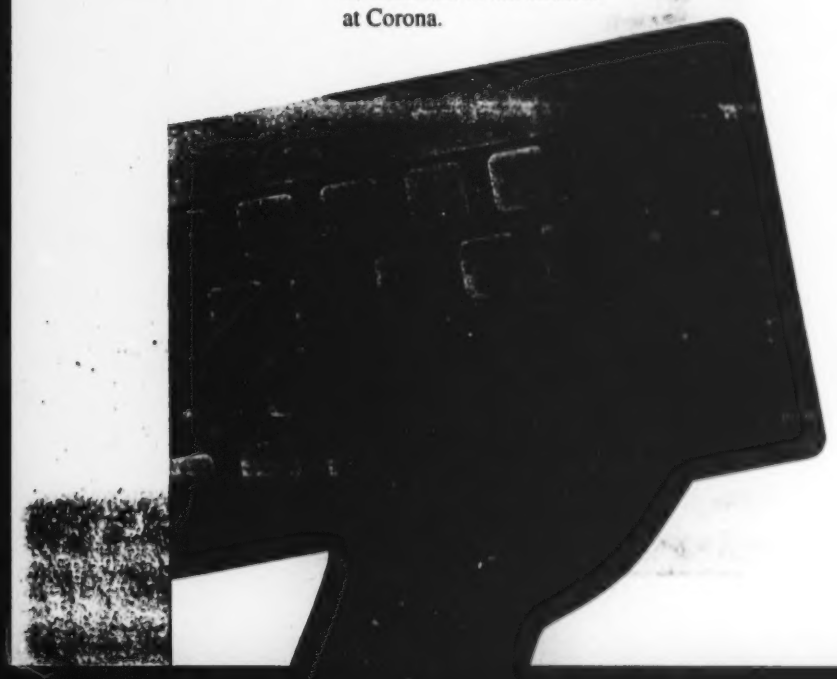
What has helped the Internet become more popular is the development of the **World Wide Web.** The World Wide Web (WWW or the Web) is a network of sites on the Internet which have words, sounds, and pictures. It is its visual quality that distinguishes the Web from the rest of the Internet. Here, commercial companies, nonprofit organizations, and individuals supply lots of information on just about any subject imaginable. In fact, many organizations and commercial outlets are creating "content" or information aimed directly at kids of all ages, and kids are spending a lot of time on the Web.



PARENT STORIES

Parents at The Corona Avenue Elementary School, many of whom cannot afford to have a computer in their home, have found the information superhighway to be well within their reach. Technology has motivated parents to become involved in their children's school, a year-round program in Bell, California, with a large bilingual population. Parents started by asking for computer classes where they could learn to use the computer at school. With that training under their belt, two parents are now teaching computer classes for other parents and their elementary school children two afternoons a week. In addition, the parents have created a parent link on the school's home page on the Web (http://www.corona.bell.k12.ca.us). There, they post information about the computer classes for parents, other school news, and provide links to other valuable online resources for parents.

"We were so excited to learn the computer, we came at 7:00 in the morning so we could get our class in before school started. Now, there's a waiting list of parents who want to take the class, and we're teaching it," said one of the mothers at Corona.



A necessary tool for exploring the Web is a **browser,** a program that lets you view what's on the Web while connecting with the search engines that help you find what you want to see. Popular examples of browsers are Netscape, Mosaic, and Microsoft's Internet Explorer. Examples of search engines include Yahoo, Lycos, Alta Vista, Infoseek, Webcrawler, Magellan, and Excite. Also, browsers make it very easy to move from site to site and back again on the Web, another feature that attracts many users, especially children.

Internet Notes

Since the Internet is a new medium for many people, here are two tips for wise traveling:

You Are Not Alone

Because you often sit alone at a computer, and many of your interactions take place anonymously, you might assume you are truly anonymous when online. Despite various e-mail or **chat group** claims to protect your anonymity, it is always possible for someone with the right tools to find out where your transmission is coming from and, hence, who you are.

Check the Source

Another important thing to keep in mind is the credibility of online information. It is easy to be dazzled by all of the sights and sounds of the online world. However, unlike books, magazines, and other information sources that are scrutinized by an editor, much of the information online is not. Individuals with Internet access can post almost anything they want. Don't take everything you see and hear for truth. Always consider the source, and exercise common sense and good judgment in evaluating the information you see.

In Other Words

The term "information superhighway" is also used to refer to:

1. The nationwide network of telephone wire, cable, as well as wireless and satellite connections over which information moves, also called the National Information Infrastructure (NII); and
2. More informally, the delivery of information like text, video, and audio over the NII network using computers, cable television, telephones, and other delivery systems.

What's At Stake?— Why Computers Matter to Your Child

The information age is arriving at lightning speed. Children and young people are among the most active citizens of the new era, and are often first in their family to use the new media. Some parents and other guardians of young people are enthusiastic about the new technologies; others desperately hope these changes will just go away.

However, there is little doubt that computers are here to stay and that they're changing the way young people learn, play, and get ready for their work life.

- Experts agree that more than half of new jobs require some form of technology literacy.[1]

- In the early 1990s, workers with computer skills earned 10-15% more than workers without such skills.[2]

And children are increasingly using new technologies in their schools, libraries, homes, and communities.

- Estimates show that roughly four million children between the ages of two and 18 are now online, with the number expected to grow nearly four times by the year 2000.[3]

- For the 50 million children now in U.S. elementary and secondary schools, 9% of classrooms have Internet access and 50% of schools have some kind of access to the Internet.[4]

In addition, parents understand that computer skills are important. In fact, 89% of parents believe computer skills are important to educational success.[5]

But parents face uncharted territory, and the technologies are evolving so quickly it seems hard to get a handle on what this new territory really is. One parent commented:

"...it's like being illiterate in a world of readers. We don't know enough about what's out there to know what to be concerned about."

In addition, not all parents can afford a computer in the home, and not all schools are yet integrating technology into learning—creating a gap between children who are prepared for information-era jobs and those who aren't.

How can a parent teach, when there's so much to learn? This new challenge may seem unlike any other you've faced before as a parent. But, in fact, many of the answers lie in common sense, some basic experience, regular vigilance, and sensible guidelines for children.

How Parents Can Help

Make sure your child's school has the appropriate technology and uses it to enhance learning.

Make sure your child is involved in fun, useful, and safe activities online.

Make sure that the education and technology needs of all children are being met. Contact your library, school board, city council, and your county, state, and federal elected officials.

What Does Using Computers Actually Do for Your Child?

What Computers and the Information Superhighway CAN Do

They can help children learn skills using information resources and technology such as problem-solving, fact-gathering, analysis, and writing on computers—skills that employers will seek from future workers (today's young people). They can also help young people learn computer programming and other marketable skills.

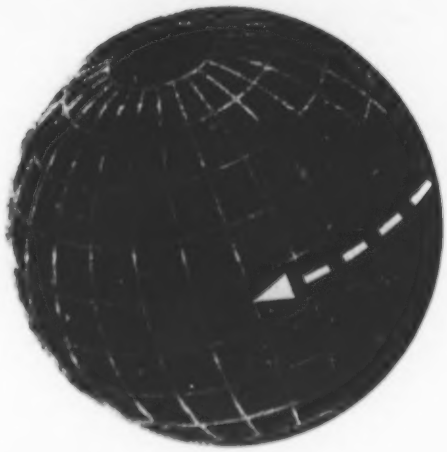
They can open up new worlds of rich learning experiences to children through schools, libraries, and home. For example, children can work on a school project with other children in countries thousands of miles away—or gather information from and try out their ideas with renowned scientists, authors, or business leaders. And "electronic pen pals"—either relatives or new online friends—from opposite ends of the planet can e-mail each other almost instantly.

They can increase access to children who have been shut out. Children in poor or rural school districts can use online services to visit museums, cities, and wildlife preserves they would not otherwise get to see. Children with disabilities can participate more fully in learning, in art programs, and in socializing.

What Computers and the Information Superhighway CAN'T Do

Computer and online time alone can't make your child an honor student. Children learn best when they receive individualized attention and encouragement from teachers and parents. Every kind of technology—from the blackboard to slide presentations to cable TV in the classroom to **CD-ROMs**—is simply a tool whose effectiveness depends on using it well.

Computers alone won't make your child a well-rounded, successful adult. Children still need the balance that comes from outdoor activities, friends and family, solid academic skills, and healthy relationships with strong adult role models.



What Computers and the Information Superhighway MIGHT Do

They can be a way for you to spend more time with your child on educational and recreational activities. Research shows that family involvement in a child's education is one of the most important ingredients for success. Spending time online with your child can be a way to connect with what he or she is learning in school and to stay involved. Computers can also help you expose your child to information and experiences that you value.

Online technologies can also be a way for you to stay in touch with your child's teachers, school schedules, and homework assignments. Increasingly, schools are offering parents access to important school information via e-mail and online school bulletin boards. This can be especially helpful for parents whose work schedules make it hard for them to meet with teachers or be at school during the school day.

So, Why Should You Care About Computers and the Information Superhighway?

First, because **information literacy** skills will increasingly be expected of young people. Young people fluent in information resources will likely have advantages in the workplace. Second, this new resource may hold special educational and other opportunities for your child—as the online world can bring diverse experiences to young people. And, finally, more and more children are taking the lead to get online—and need strong parental guidance to use this new medium as a rich opportunity for learning.

When Is Your Child Ready?

Very little formal research has been done to understand how information technology affects children of different ages and when is the "right time" to start various activities. Also, children differ in their development and maturity—so parents should first consider their own child's emotional development and abilities. But common sense, combined with advice from child development experts, suggests some age-appropriate guidelines.[6]

Unlike some other areas of a child's growth, a parent should not treat computer use as a development milestone. There are no "shoulds" in this arena like "a child should walk by 15 months." The main thing to keep in mind is that the online world offers children a new set of experiences, another world to explore. It is also a new resource to help satisfy a child's seemingly endless curiosity and find answers to those amazing questions kids constantly come up with.

Many of the tips in this section apply to more than one age group. We have placed the tip in the age group where it is first applicable.

Ages 2-3:

Computers need not play much of a role in the youngest child's life. However, it doesn't hurt for very young children to see family members using computers and enjoying themselves online—at a library, at a community center, or at home.

At this time, stand-alone computers using CD-ROMs or other software (rather than online activities) are most likely to have what children this age need. Parenting magazines and some nonprofit organizations publish reviews of software that may be helpful.[7]

Handy Tips

- Put your child in your lap as you "play" on the computer.
- Put your hand on your child's to show him or her the way the **mouse** works.
- Children like to play with the equipment: start slowly letting them learn about the keyboard (some are especially designed for children), the mouse, etc.
- Look for books and children's video programs like Sesame Street that include images of children and family members using a computer. These can provide important exposure and encourage interest.

Ages 4-7:

While serious computer use isn't a priority for these youngsters, children at this age can begin to make greater use of computer games and educational products. Once again, parents of children this age can look to CD-ROMs and other computer software for early computer learning. Older children in this age group can also begin exploring online children's sections with their parents. This kind of exposure with a young child is a great way for a parent to get involved with new media. Yes, children do learn intuitively and quickly, but at this age they still depend on parents for reading and interpreting directions. This makes a shared computer experience a valuable give and take experience.

Handy Tips

- Spend as much time as you can with your child while he or she uses the computer.
- Use actual experiences to demonstrate proper behavior and rules.
- Show lots of tangible results and achievements. For example, print work your child has done on the computer.
- Share an e-mail address with your child, so you can oversee his or her mail and discuss correspondence.
- As children go to school, check in with teachers so you can coordinate and reinforce school learning with home learning.
- Look to librarians and various parenting magazines for suggestions of good online activities.

Ages 8-11:

This age is when children can begin to directly experience and appreciate more fully the potential of online experiences. Children can begin to use online encyclopedias and download pictures and graphics for school reports. They can also begin to have pen pals from many places, exchanging stories with far-away relatives and online friends, and even doing shared school projects.

It is also a very important age to set guidelines, teach values, and monitor closely what children are doing. As children move toward independence, it is important that you stay "hands-on" and help guide them to enriching and appropriate materials.

Another important reality is that children of this age are being targeted by programmers and advertisers as an important commercial market (see page 17). Media literacy—helping children evaluate content and understand what's behind advertising—is an important skill to teach.

Handy Tips

Set very clear rules for online use and clear consequences if they are broken.

Instruct children not to order products or give out information about themselves or their family without your permission.

Coordinate home with school activities.

Teach children to let you know if they encounter anything scary or unusual online.

Help children understand the nature of commercial information and how to think about it.

Discuss some of the unique aspects of behavior in **cyberspace**—like anonymity and what it means for your child and for others.

Watch the time. Use an alarm clock or timer if you or your child lose track of time.

Watch your phone and credit card bills.

Ages 12-14:

At this age, young people can use the more sophisticated research resources of the information superhighway, accessing everything from the Library of Congress' collection to magazines and newspapers to original letters and archives from around the globe. Similarly, they can work with people in remote places on shared projects and can learn from speaking online to leading authorities on nearly any subject. In addition, many young teenagers are interested in "chatting." Most online commercial services have chat rooms that are appropriate for preteens and teenagers. There, kids can chat (via typing on their computer) to others who share their interests. A parent's job is to stay in as close touch as possible (a tough task at times).

Handy Tips

Since children this age are more likely to explore on their own, set up clear parental rules, limits, and periodic check-ins.

Continue to explore together as much as possible.

Give children a basic understanding of the laws governing online behavior and the consequences of breaking them (see page 18).

Set clear rules about time spent in **chat groups** and which ones are acceptable.

Be sure your children understand the actions that can be taken if people harass them online or do anything inappropriate (see page 19).

Set a budget for online expenses and monitor it.

Pay particular attention to games that your teenager might download or copy. Many are great fun, but others are extremely violent. Parents need to set limits about what is acceptable and what is not.

Ages 15-18:

The online world is a rich resource for older teens. They can receive information about job opportunities, internships, and colleges and universities; put together **multimedia** reports; get specialized help with a foreign language or a subject at school; and find out just about anything else that interests them. They are also ingenious explorers, discovering new areas online and often meeting new friends. Of course, along with teens' increased curiosity, capability, and freedom come more ways to run into unpleasant or undesirable experiences. As with other activities at this age, parents can still find creative ways to keep in touch with their teenage children about online activities, and this connection is still important.

Handy Tips

Ask your teenager for help researching topics of interest to the family (follow-up on a family discussion, family vacation, a new purchase).

Talk to your teenager about new things online and encourage discussion of new experiences.

Make sure your teenager knows the legal implications of online behavior (see page 18).

Watch time limits to make sure your teenager is still pursuing a well-rounded set of activities.

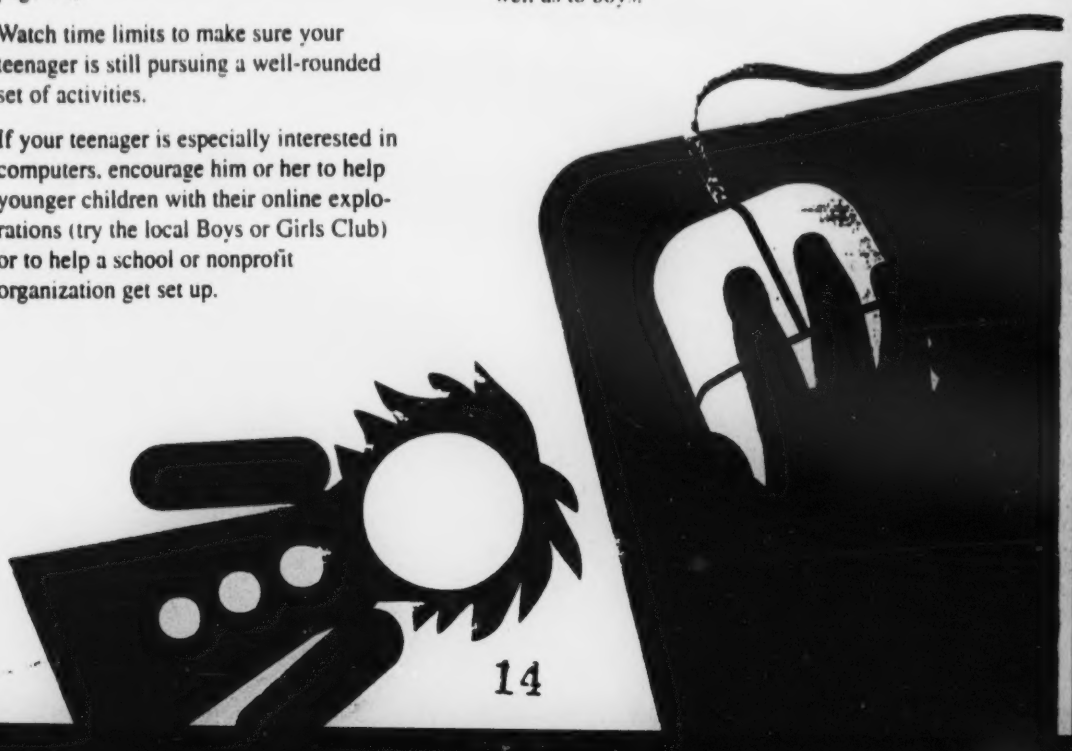
If your teenager is especially interested in computers, encourage him or her to help younger children with their online explorations (try the local Boys or Girls Club) or to help a school or nonprofit organization get set up.

Girls: A League of Their Own

As they get older, girls use computers and online opportunities differently than boys. Many girls lose interest because, like with science and math, the computer world is more oriented to males. For example, video games and other software for home computer use are overwhelmingly developed for and marketed to boys. According to a variety of reports:[5]

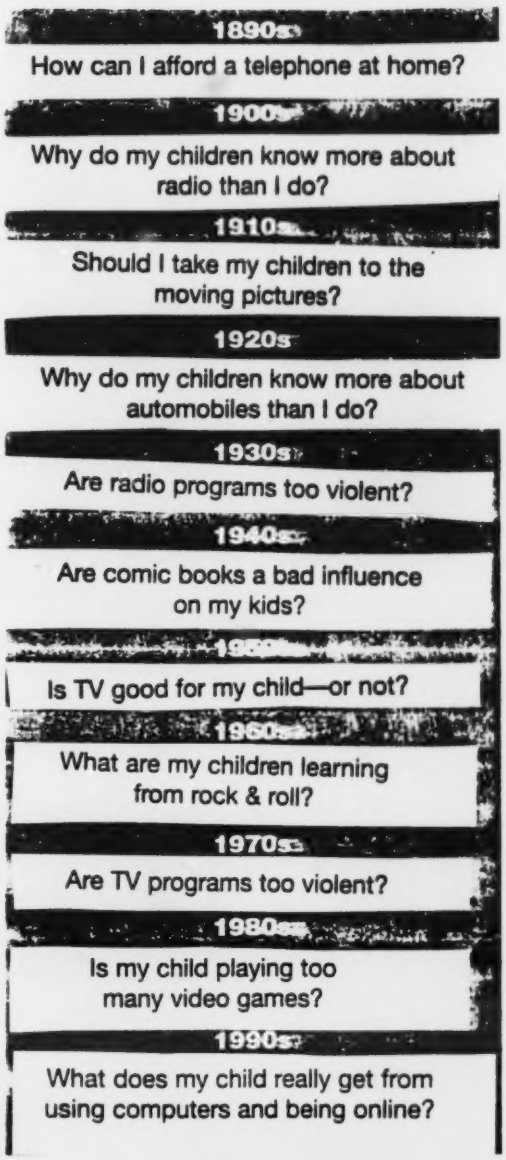
- In elementary school, there is little difference between boys' and girls' computer use and ability.
- By the mid-teen years, when computer courses are typically elective, the gender gap grows and continues to widen through college and graduate school. Three times as many men as women now earn computer science degrees.
- Girls use home computers for school work more than boys, and use computer games far less.
- Women are only half as likely to be online as men and half as likely to use the World Wide Web.

With so many jobs and much of the culture tapping into computers and information technology, mothers and fathers should do as much as possible to encourage girls' interest and experience with computers. They should be aware that their girls will need these skills as much as boys, and should let schools and computer and content providers know they want material that appeals to girls as well as to boys.



Getting Started Step By Step

Parents and New Technology: The Last 100 Years


1890s
How can I afford a telephone at home?
1900s
Why do my children know more about radio than I do?
1910s
Should I take my children to the moving pictures?
1920s
Why do my children know more about automobiles than I do?
1930s
Are radio programs too violent?
1940s
Are comic books a bad influence on my kids?
Is TV good for my child—or not?
1960s
What are my children learning from rock & roll?
1970s
Are TV programs too violent?
1980s
Is my child playing too many video games?
1990s
What does my child really get from using computers and being online?

Have We Been Here Before?

Fifty years ago, in 1946, there were 6,000 black and white TVs in the entire country, mostly in well-to-do homes. Three years later, in 1949, there were three million TVs, and in 1951 there were 12 million. Today, more Americans have TVs than have telephones.[9]

Fifty years ago, people argued whether TV was a tool or a toy: would it just provide mindless entertainment or teach our children and bring the world closer together? People had asked similar questions about the radio, movies, the telephone, and even the telegraph in the 1840s! Today, they're asking the same kinds of questions about computers and the information superhighway.

But the answer is always the same: it isn't the technology. It's the way people use the technology that makes the difference.

A lot of people believe that television could have been much better for children if parents had gotten involved back in the 1940s and early 1950s, letting the networks know what they wanted for their children. If you want the information superhighway to be something other than home shopping and video games, now is the time to GET INVOLVED! Chapter III of this Guide will give you some idea of how to do that.

Some Basic Rules

For most parents who are just starting with computers there's a simple rule: concentrate on *experiencing* the new technologies—not necessarily *understanding* them. You don't need to understand electronics to get cash from an automatic teller machine. You don't have to be able to build a car to drive one. You don't need to understand all that makes up a computer to see how your child will use one.

BEST COPY AVAILABLE

A quick trip to an electronics store, a public library, or an Urban League office can introduce you to computers, a wide variety of software, CD-ROMs, and online networks. People here are used to working with beginners. Once you begin to experience cyberspace, as the online world is called, it gets much easier to navigate.

Do Your Homework

Learning and playing with new technology can be integrated into your everyday life. When you go to the mall spend ten minutes with the computer display in the toy store or electronics store. Ask your school to set up a parent night or weekend so parents can see and learn. Ask teachers or librarians where in your community you can go to use a computer connected to the Internet.

Learn With Your Child

Computers can offer one of the best, most fun, and most challenging journeys that parents and children can share. Remember, studies show parental involvement is an important ingredient for educational success. Your goal is to learn and experience as much as possible with your child—and make it enjoyable.

Be a Good Guide and Monitor

Your job (just like in other areas) is to explain, guide, make the rules and enforce them, and keep the whole thing focused on positive learning and fun. One of the best things about this new frontier is that it gives you rich, new opportunities to learn and play together with your child. Here are some tips:

Side by Side: You can help your child have a positive and balanced experience with the computer. The best approach is to start the process together. Set aside a regular time to work on the computer with your child. If he or she has had computer experience, let your child take the lead. It can be a great boost for self-confidence—at least for your child! Ask your child to explain what he or she is doing and why. Go down the highway—together.

Talk with your child about what students are doing on computers at school, whether you have one at home or not. Ask to see what they have created on the computer. And invite friends—yours or your child's—to join in, too.

Felecia, 10, is dyslexic. Her father, a single parent, could rarely make it in to her school to talk with her teacher because of his work obligations. However, he was worried that Felecia wouldn't get the help she needs. Through e-mail, he was able to keep in regular contact with her teacher, and monitor her progress much more frequently than he could have if he had to set up face-to-face meetings.

Lam, who is eight, is from a family that originally came to the United States from Nha Trang, Vietnam. He and his mother went online to research information about Vietnam. Together, they found a Web site about the village where he was born and found a family with the same surname who owns a small shipyard. They were able to contact this family and to begin exploring whether or not they were related to them.

Stories in the Parents' Guide are based on interviews with dozens of families and teachers and some are composites. We have changed the names and, in some cases, the details of the story to protect each individual's privacy.

The Time Factor: Since you and your child are already strapped for time, perhaps the first place to look is television time. Family, friends, homework, school, and outside play are all very important for the healthy development of children, so try to shift TV time to computer time. (This shouldn't be that hard: studies show that children who use computers watch less TV.)[10]

Monitor Computer Time: Keep the computer in a family area rather than in a child's room—at least to begin with. Keep an eye on the clock, and watch the phone and credit card bills (that's where charges for commercial online services or purchases show up). Check in regularly on what your child is doing.

Setting Up to Go Online

The number of parents who are purchasing computer equipment is growing. Eighteen million homes had **modem**-equipped computers in late 1995, compared to 11 million just one year earlier.[11] And more than one in three of the computers used in American households was bought in the past two years.[12] Schools, too, are getting computers and going online at a fast pace.

This section is a basic primer on buying computers and going online. The information can be used by parents who are helping equip their school or community center or who are setting up at home. Chapter III has further information about getting involved with technology at school.

Get Ready Before You Buy Equipment

Remember, you don't need to understand every technical aspect of computers in order to be a good consumer. Think about the telephone. How many people understand how the telephone actually works or keep up with the newest devices? Like the telephone, the important thing to learn with new technologies is the basics—how technology can help your family spend time together, find and gather information, and communicate, create, and learn.

Handy Tips

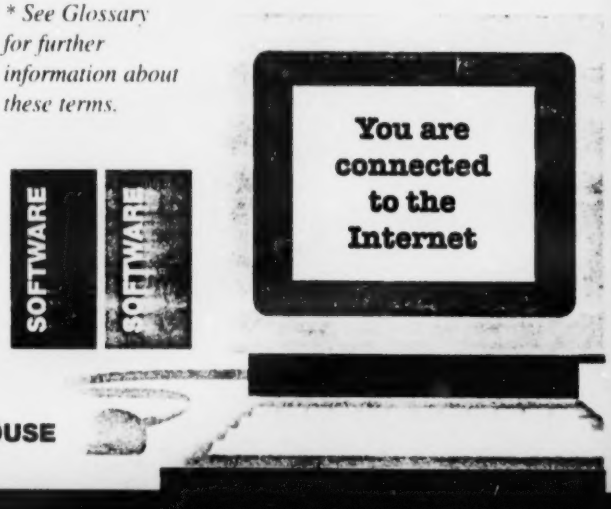
- Use common sense and have fun: the goal is to get the best equipment—to get what you most need, at the right price.
- This is a major purchase, but think of it as both a piece of equipment and an investment in an information and skill-building resource for the school or family.
- Visit computer stores—more than once—and ask lots of questions to figure out what equipment enables you to do what you want.
- Check with the Technology Coordinator for your school or school district to find out whether they have special recommendations or know about bargains for schools.
- Remember to ask about possibilities for upgrading the equipment and the need for ongoing maintenance.
- Ask friends and co-workers to describe their experiences and recommend computers (if you can get the same equipment a friend has, you can share learning tips and experiences).
- Visit your library to try out a computer or to find information about purchasing computers.

What's Involved in Setting Up to Go Online

In order to "get connected," you will need:

- ✔ **A computer** (including a screen, called the monitor; a keyboard; and a mouse, a small device attached to your computer by a cord, which lets you give commands to the computer).
- ✔ **Software:** most of the internal operating software comes with computers, but you may want to ask about word processing, Internet connection software, and other educational or recreational products.
- ✔ **A modem,** which connects you to the online world (can be built in or external to your computer).
- ✔ **Connections:** Phone or cable line, an Internet service provider (see page 11), and a browser.
- ✔ **Blocking devices**—either through the online provider or commercial software (see page 16).
- ✔ **Options** (CD-ROM, printer).

** See Glossary for further information about these terms.*



A Word About Used Equipment

Some experts caution against buying used equipment while others feel it can provide a good first experience with computers.

If you go that route, you ought to exercise the same caution you would in buying a used car. Also, many older computers and other **hardware** are slower and might not provide a satisfying experience online, but might be great for starting out with software that doesn't involve going online. If possible, try to bring along a knowledgeable friend or acquaintance who can help make sure you get the equipment you need.

Going Online: Selecting an Online Service

In addition to the "hardware," you will need a service to connect your computer to the online world. The commercial services (like America Online, CompuServe, Microsoft Network, Prodigy, and others) can be a good first experience for new online travelers because they are designed for beginners, and they offer information that is attractive to families. Many of these services offer a free trial period so you can shop and see what you like.

For their base monthly fee (usually between $10 and $20), commercial services provide between five and twenty hours of online time per month. The services also charge an hourly rate for time spent online above your monthly allotment—which adds up quickly.

Those parents with more time, patience, or experience might choose to get connected to the Internet at a generally much lower cost through an **ISP (Internet Service Provider)** which can be found in most communities. Call your local telephone company, computer store, or local library and ask for a list of providers.

Some areas of the country are also served by **Freenets.** These are nonprofit online access providers, often government-subsidized, which provide online services like e-mail, and sometimes Internet access as well. Freenets are typically set up in libraries and community centers. Some are free, others are provided at a reduced cost.

When you select a commercial online service provider, remember to check on the following:

- How much free time will they give you to "check out" the service? (Most services do this and it is probably the best way to sample the online world and see which service is a good match for you.)
- What is the cost of the service?
- How much time is included for that fee?
- How much does additional time cost?
- What are the features, especially for families and your particular interests?
- What features might not be appropriate for children?
- What devices are offered for parents or teachers to protect children online?
- What help is provided to new subscribers? Is there ongoing technical support? At what, if any, cost? How long are the waiting periods?

Dealing With Costs

What will it cost for you to get online? At this time, the average cost for new equipment is between $2,000 and $5,000—though equipment that will let you go online can be purchased for $1,000, and costs are coming down. With used equipment, the cost is less. But getting online still isn't cheap, so many parents will want to find libraries and other places in the community that offer access to computers for free (see page 12).

Companies are beginning to find ways to make equipment available to more people at a lower price. One of the major changes on the horizon is the development of the so-called Internet Box, which is expected in the coming months. This is a device intended only for online access and will not have all the features of a personal computer. It is expected that these devices will retail for under $500—bringing the cost closer to that of a television.

Keeping Up: Costs and Changing Technology

While technology is changing rapidly, the best attitude is to simply dive in when it is convenient for you. There will be no perfect moment or one right way to get started. Make the time, price, and level of equipment fit you.

Alternatives to a Home Computer

For the many families who cannot afford to buy a computer and go online or choose not to for other reasons, finding alternatives is the only realistic option for getting their children on the information superhighway. Although community access to online services is still extremely limited, resourceful parents will find that more schools and libraries, after-school programs, community colleges and universities, and community centers are beginning to offer online access. In very rare instances, schools actually let families sign out computers, and a few housing facilities have put in computer resource rooms.

Your local library provides a wealth of information about the Internet and how families can make the best use of this exciting new media. According to the American Library Association, libraries in most metropolitan areas and many smaller communities (more than 45 percent) now offer public access to computers and the Internet. The goal is to have every library online by the year 2000. In addition to online catalogs and reference service, many libraries offer classes for parents, children, and others in how to navigate the information superhighway. The best part—all you need is a library card. And librarians are at hand to provide assistance. For more information, call, visit, or log on to your local library or contact the American Library Association (See Resources, Chapter IV).

Though there is no one place in every community to find out where public access is offered, other good places to ask include:

- Your county office of education or school district office;
- The local community college;
- Your local Urban League; or
- Your local PTA.

(See Appendix A, pages 25-27 for contacts).

The day when access to the information superhighway is as available as public telephones is a long way off. And some of the institutions mentioned restrict access and time of use—and, in some cases, charge fees. But by being persistent, parents can find resources in the community. In addition, they can document the lack of adequate equipment and let elected officials and corporate leaders know what is needed.

How Can You Find Good Places to Go and Things to Do Online?

Wonderful adventures are waiting in cyberspace. In fact, somewhere between 300,000 and half-a-million sites exist on the World Wide Web alone, with more being added each day.

Good Places to Go and Things to Do Online

There are several ways to get started finding good places to go and things to do online. A number of magazines, newspapers, and organizations publish their "best picks for kids" of Internet sites.[1] These can be useful resources, but keep in mind that sites frequently change their content and location, so review recommendations with care.

Also remember that these publications usually don't distinguish between sites that are commercial and those that are not—an important distinction, since the commercial ones contain advertising and marketing devices, some of which might be inappropriate for or exploitative of children (see page 17). We suggest beginning with sites that are well-known, noncommercial, and educational.

Katie, who's five, is learning her ABCs. Her mother is encouraging her by helping her type simple e-mail notes to her dad, who's on a Navy base in Cuba. Katie's mom has taken her online to show her more about the Navy and about where her father is located and what he is doing.

Since experimenting for yourself is the best way to get started online, we have picked a few activities and sites that are fun, educational, and safe. Once you have experimented with these, you can move on to explore the wider range of options available online.

1. **Visit the Library of Congress** at http://www.loc.gov. Some of the most exciting things at the Library of Congress are the online exhibits—allowing the user to view an art collection or see a special event that is taking place at the Library. While the Library's site is mostly text-based and very good for research of various kinds, its graphics of exhibits are amazing. The site also provides a great beginner's guide to the Internet—more information than most people will ever need, but very thorough and useful.

2. **Take a White House tour for kids** at http://www.whitehouse.gov/WH/kids/html/home.html. The White House tour for kids is one of the most enjoyable things a young child can do online. With a very child-friendly, colorful, and easy-to-navigate layout, the cyber-tour gives a great deal of history and information on the White House and U.S. government in a fun, informative manner.

3. **See what the space agency, NASA,** has put online at http://spacelink.msfc.nasa.gov. Perhaps best suited for older kids, the NASA site contains information on all of the space agency's programs, an online library for research, and exhibits on recent space phenomena, such as the comets, Hubble Telescope, MIR, and the Galileo spacecraft. If you are interested in the Space Shuttle, there are special pages for all of its missions, including information on weather, orbits, a tour, and a special countdown page. Parents and teachers will find this site truly educational.

4. **Visit exhibits from the San Francisco interactive science museum, the Exploratorium,** at http://www.exploratorium.edu/learning_studio/. The Exploratorium contains online exhibits that are changed and updated regularly. They are broken down into age categories, so there is something for all children here. Much of the material on the site is on the cutting edge of Web technology. If you have a slow Internet connection, some of this may take a long time to download. Memory tests, optical illusions, audio and video samplings, and a host of experiments to be done online and at home provide hours of educational fun.

5. **See what is happening in your backyard or around the world with Internet Weather Resources.** There are many weather sites on the Web, and a number of them are listed at http://cfa1165.harvard.edu/weather.html. Choose one of interest to you and your child, then see radar images, space photography, current conditions, and the forecast for nearly anywhere in the world.

Check out some useful information for yourself.

6. **The National Parent Information Network (NPIN),** at http://ericps.ed.uiuc.edu/npin/npinhome.html, provides information to parents and those who work with them and fosters the exchange of parenting materials. Materials reproduced in full on NPIN have been reviewed for reliability and usefulness by trained specialists in child development. NPIN also provides lists of publications, brochures, and other materials for parents.

7. **The National PTA** at Children First! on the Microsoft Network at "go children" or their web site at http://www.pta.org, has a wealth of valuable resource information for parents, teachers, and child advocates. It offers extensive archives of PTA materials on a wide variety of relevant topics, e.g., parenting skills; leadership development; nurturing creativity; HIV/AIDS education; parent and family involvement issues; legislative issues; links to other PTAs and related child advocacy organizations; links to PTA membership development resources; and many more. Children First! also features an online celebration of PTA's 100th Anniversary.

8. **The National Urban League,** at http://www.nul.org, is a useful resource for tracking programs and events related to African-American issues. In addition to its virtual library, the site gives information about its affiliates and activities in 114 cities. It is a rich reference area for students, parents, teachers, and history buffs.

9. The Children's Partnership, at http://www.childrenspartnership.org, contains background information on The Partnership, selected text from many of their publications including *The Parents' Guide to the Information Superhighway,* and links to other sites of interest to parents.

10. The Benton Foundation, at http://www.benton.org, will tie you into broader efforts to improve the conditions of children across the country, to improve public policies, and to work effectively with the media. In addition to guides for working with the media, this site provides information about election-year activities, links to organizations that work on policy issues, and volunteer opportunities.

11. Children Now, at http://www.dnai.com/~children/, is a good resource for keeping abreast of children's issues and getting involved in advocacy. It includes useful links to other resources as well as volunteer opportunities.

Parent Internet Overview

To help you plan some explorations, here's a useful navigation map for parents and their children, called The Parent Internet Overview. It provides a simple framework for categorizing places on the Internet of interest to families. As you explore online and find places you like, you can turn this overview into a more personalized guide for your family.

Parent Internet Overview

Category	Description	Sub-Categories
Kids' Services	Online and World Wide Web services that provide safe, recreational games and activities for children ages 4 -11.	■ Kids' Games & Activities ■ Kids' Clubs ■ Kids' Publications
Teen Services	Chat groups, digital publications, and activities for teens ages 12 - 16.	■ Teen Games & Activities ■ Teen Cyberzines (online magazines) ■ Teen Clubs
Student Services	Educational activities for learning both at home and in the classroom.	■ Reference Resources ■ Academic Subjects ■ Virtual Explorations ■ Commercial Educational Sites
School Connections	School sites for teachers by grade level, including directories of schools on the World Wide Web.	■ Preschool ■ Elementary School ■ Middle & High School ■ School-to-School Links
Parent Information	Information for parents to learn more about themselves and the Internet.	■ Family Services ■ Parenting Resources ■ Parental Discretion on the Net
Public Interest	Community organizations and public policy initiatives for parents on the Internet.	■ Organizations/Associations ■ Public Policy Initiatives ■ Services for the Community
Special Interest	Web sites designed for cultural exploration and children with social needs.	■ Multicultural Sites ■ Disabled Children Sites

How Can You Keep Your Child Safe Online?

The online world mirrors the real one: it includes the good, the bad, and the ugly. And, just like the real world, different parents have different standards for what they want their children to experience. This section is intended to give you a briefing on what you need to know to steer your child to safe, productive, and legal time online. It tells you:

- How to manage the information that children see and hear;
- What the legal and ethical rules of the road are; and
- How to teach children safe traveling online.

Parents in Charge

Parents are increasingly aware that certain information online is not appropriate for children, or is appropriate only for certain ages. Most parents have strong feelings about what their children should be exposed to and are concerned about how easy it is to get to information online. Parents worry about materials that are sexually explicit, violent, racially biased, and overly commercial.

The good news is there are now several ways for parents to limit where their children can go online and who can contact them. These technologies and services have limitations and are evolving at a fast pace, so parents need to be alert.

At this time, there are three major ways parents can attempt to restrict the material a child experiences online:

1. Use a Commercial Online Service That Offers Parental Control Features.

Probably the simplest blocking devices to use—and therefore a good start for a parent new to the online world—are the parental control features offered by commercial online services like America Online, CompuServe, Prodigy, and Microsoft Network. These services provide parental control mechanisms, and they have guidelines for appropriate behavior on their service. Moreover, many of these services have monitors who periodically check on behavior. Users who break the rules can, at a minimum, lose online privileges.

Parental control features you might want to look for in deciding whether to use a commercial service and in choosing among them include:

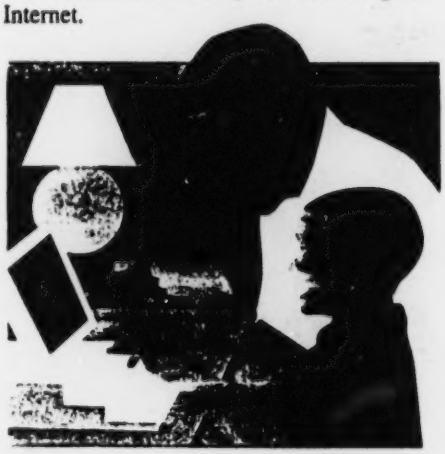
- ✔ Clearly marked areas for children—with plenty of high-quality material that will keep a child engaged and that is screened for objectionable content.
- ✔ A clear set of rules for appropriate online behavior.
- ✔ Parental ability to block out discussion groups, chat rooms, and other areas that might contain objectionable material.
- ✔ Parents' ability to screen their child's e-mail.
- ✔ The blocking device's ability to control Internet and Web access through the commercial service.

PARENT STORIES

José, a 10-year-old boy from Los Angeles, really likes science. He is especially interested in viruses, particularly the Ebolla virus, which he has read about in the newspaper and seen stories on TV. His dad even had a book about viruses called *The Hot Zone*.

One morning, using a search engine called "yahoo," he typed in the words "Hot Zone" to see if he could find out more about the Ebolla virus. What he found was a sexually explicit Web site complete with photographs.

"Dad," José called out laughing, "you better come see this." Startled, José's father sat down at the computer with him and helped him to find accurate information about the Ebolla virus. Together, they talked about what to do if such a situation occurred again and reaffirmed the family rules for using the Internet.



Some Blocking Devices You Can Buy*

Below is a list of some of the products on the market, including the names and phone numbers for ordering guides.

Cyberpatrol: The product's retail price is $49.95. Call 1-800-489-2001 for information; http://www.cyberpatrol.com

CYBERsitter: Retails for $39.95. Call 1-800-388-2761 for information; http://www.solidoak.com

Net Nanny: Retails for $39.95. Call 1-800-340-7177 for information; http://www.netnanny.com/netnanny

SurfWatch: Retails for under $49.95. Call 415-948-9500 for information; http://www.surfwatch.com

Be Sure to Find Out:

- ✔ Whether the product has the protection features you are looking for;
- ✔ Whether the product can be used on the type of computer you have;
- ✔ Whether there is a subscription fee after you've bought the product; and
- ✔ Whether the product works on commercial service providers, only on a direct Internet connection, or both.

**Information as of 7/22/96. Prices and contact information change frequently.*

2. Install Your Own Parental Control Software Product.

There are now a range of parental control software packages that you can purchase and install. Blocking devices can cover **Web sites,** newsgroups, and chat channels, among other things, and some allow parents to tailor restrictions. Some work with commercial service providers and some are for direct Internet access. Here are some of the approaches that different products use:

- Some allow a parent or program to block out a specific online site or sites by name. The downside is that the number of sites is vast and constantly changing, so it is virtually impossible for a parent to keep up. However, some parental control programs give the user a regular update of sites and allow parents to choose which ones to block.
- Some blocking programs identify undesirable sites by searching for unacceptable words before allowing a child access. This list is updated periodically, and parents can purchase or subscribe to the ongoing updates.
- Some devices can also block entire categories of material such as those deemed suitable for adults only. Parents can enter a key word and block whole Internet features and destinations.
- Other software actually prevents children from giving out personal information online. This can be helpful for safety and to protect against exploitation of children.
- Still other devices restrict the time of day and duration of children's online sessions, and make certain areas of the parent's hard drive inaccessible.

3. Use PICS (Platform for Internet Content Selection).
The World Wide Web Consortium, an industry consortium which develops common standards for the Web by producing specifications and reference software, is backed by many of the biggest online commercial companies. The Consortium has created a new way to help parents discern and restrict content for children. These "online protocols," called PICS, create a common language for labeling material on the Web. This means that different organizations, such as religious, civic, and educational groups, can issue ratings or guidelines (a labeling system) that a parent can use. This feature enables parents to use guidelines prepared by the organizations they trust. This new technology, along with guidelines from organizations, is expected to become more available. For further information, visit the Web site of the World Wide Web Consortium at http://www.w3.org/pub/WWW/PICS or call (617) 253-2613.

Other promising new products are under development, such as a v-chip for online activities. This new generation of devices could give parents even more effective options for controlling what their children have access to online.

A Commercial Message

The Internet began first as a Defense Department network and then served as a university and research-oriented network. Most commerce is new to the Internet and no one is sure what commercialism online will ultimately look like. What is clear, however, is that advertising and marketing pitches directed at specific online users are laced throughout the Internet. And children are a special target because marketers recognize that young people like using this medium and are often the family's pioneer. So, developers of software, video games, and commercial products sold online are creating a great deal of information aimed directly at kids to get them to purchase goods and services.

- In 1995, children under age 12 spent $14 billion, teenagers another $67 billion, and altogether they influenced $160 billion of their parents' spending.[14]
- According to a recent report from the Center for Media Education, online advertisers are now targeting children as young as four, and a significant number of companies are online now, using marketing and advertising practices that are potentially harmful to children.[15]

Parents and other consumers are used to telephones and television—media that have been regulated over time. In these media, there are certain restrictions on advertising, especially ads aimed at young people. However, many of the traditional protections afforded children—such as limits on cigarette and alcohol advertising—do not clearly apply in cyberspace. In addition, the distinctions between advertising and content that exist in traditional media are absent in cyberspace. This makes the job of protecting children from inappropriate marketing new and potentially difficult.

There is early evidence that advertisers are using online interaction as a way to collect children's names, addresses, and other marketing information.[16] As marketers race to find the best way to create one-on-one pitches to consumers, there is a special need for parents to be alert to the need to protect their children's privacy.

Parents need to be aware of the commercialism online and decide how they want to limit their children's exposure.

Handy Tips

- Explain and demonstrate to your child how advertising works online and what its goals are.
- Help steer your child to positive, non-commercial sites (see page 13).
- Determine what type of commercial interaction you are comfortable with and explore blocking or other options to screen out the content you oppose.[17]
- Let commercial companies know what you think of their products and practices. This is an especially sensitive time as companies want to be perceived as family-friendly. You can help make sure they really are by letting them know what you think. (You can e-mail, call, or write.)
- Write your representative in Congress or the Federal Trade Commission in Washington if you see anything you think is wrong. This is an altogether new "playing field" and public officials need to know about activities parents find offensive.

THE LAW ONLINE

Many laws that pertain to information in other forms like books and magazines or television may apply in cyberspace, but have not yet been tested. Although the law is changing and lawmakers are struggling to find ways to regulate this challenging new medium, some rules do apply. In some cases, you or your child could inadvertently run into trouble with the law, including prosecution, prison, and fines for breaking the law. Here are some basic guidelines about frequently asked legal questions. You can refer to the Resources in Chapter IV for updated and more extensive information.

Copyright

Copying photographs, music, stories, films, and other artistic works is not allowed online without obtaining the proper permission from the owner of the copyright. Typing a story from a magazine and distributing it or scanning a photograph for posting is illegal unless you obtain permission from the original publisher. However, many photographs and graphics have been approved for public use (they are considered "public domain"). And, in cases where permission is needed, it is often made easier online by an e-mail link to request permission.

Copying or Distributing Software

Copying and distributing most purchased software is illegal. Although virtually all software is copyrighted, some programmers make their software "public domain" which means it can be copied or shared for free. Unless the software is marked as "shareware" or "freeware," it is a violation of the law to upload or download software online.

Privacy

E-mail is generally afforded privacy rights if it is sent between individuals. Information or messages posted to a public location are not considered private. Children should be aware that no legitimate service provider will ever request information about them. Some private systems will request your address or phone number so that you can be added to a mailing list. This is not illegal, but there is no obligation for your child to give the information.

Hacking

It is generally considered illegal to access or attempt to access a private information system. This is called hacking. Children will explore the Internet—that is what it is there for. They should be warned that if they ever encounter a private system that asks them for a **user ID** (or **userid**) and password they should leave the site immediately.

Obscenity

This is a very complicated area. However, parents should remember that materials they might consider obscene or objectionable for their children to see may be protected by the First Amendment and not considered legally obscene. Under current law, anything that is legal in print is *generally* also legal on the Internet. However, the government has special rights to protect children from exploitation. The production or sale of child pornography in any medium violates federal law. In addition, commercial online services have the right to restrict access to obscene or indecent materials on their systems.

Safety Tips for A New Medium

Although rare, there have been incidents where individuals have used the Internet to contact children and young people with the intent of harming them. Just like teaching a child to drive a car, you need to provide your child with some tools to help him or her stay safe. The common sense rules about caution with strangers apply just as strongly in cyberspace as in playgrounds or parks. This chapter will help you teach your children the important rules of the road.

There are several simple rules of safety that you and your child should agree on before going online. It might be a good idea to post these right by the computer.

Who to Call if You Have a Problem With Behavior Online

If you or your child are the victim of harassment or other trouble online, contact your commercial or Internet service provider immediately. Commercial online services have strict terms of service that help protect you and your child in the event you encounter offensive behavior. Offenders can have their accounts terminated, and service providers usually will cooperate with authorities when there is the possibility that a crime has been committed.

You can also call The Center for Missing and Exploited Children, which offers materials and assistance for parents whose children are at risk (see Resources, Chapter IV).

Your Child's Best Online Guide —and Best Protection— Is Always You

Your involvement in your child's online life is always the best insurance you can have of his or her safety. The most reliable strategy is to set aside a time each day or each week when you do online activities together. Learn with your children about fun things to do as well as about what to stay away from—that makes you a partner in the experience, rather than a resented censor.

STAYING SAFE ONLINE:

A YOUNG PERSON'S GUIDE

1. **ALWAYS** tell your parents or another adult immediately if something is confusing or seems scary or threatening.
2. **DON'T** give out your full name, real address, telephone number, school name or location, schedule, password, or other identifying information when you're online. Check with an adult for any exceptions.
3. **NEVER** have a face-to-face meeting with someone you've met online. In rare cases, your parents may decide it's OK, but if you do decide to meet a cyberpal, make sure you meet in a public place and that a parent or other adult is with you.
4. **NEVER** respond online to any messages that use bad words or words that are scary, threatening, or just feel weird. If you get that kind of a message, print it out or make a copy, and tell an adult immediately. Many services have an "ignore" button that will stop an uncomfortable situation in live chats. Adults should contact the online service or appropriate agency.
5. **NEVER** go into a new online area that is going to cost additional money without first asking permission from your parent or teacher.
6. **NEVER** send a picture over the Internet or via regular mail to anyone without your parents' permission.
7. **DON'T** give out a credit card number online.

Right and Wrong: Ethics Online

In addition to the law, parents ought to know about the special ethical issues that come up with this new technology. The interactive, seemingly anonymous nature of the online world raises old ethical questions in new ways, especially for children. Because the online world can feel "pretend" to a child, it is very important that a parent articulate and reinforce the importance of basic values (ethics) such as truthfulness, responsibility, and respect. Children need a careful explanation of what is acceptable behavior and why, and they need to know what exceptions, if any, are permissible.

Parents can use the "new" situations that come up online to reinforce basic standards of conduct and talk about values. For example:

Is it all right to download software programs that are available at some online sites?
Only when the source of the information gives you explicit permission to do so. Stealing information is like stealing other things. It's wrong and illegal.

Can I take information off the Internet and pretend that I created it?
No. It is both wrong and illegal to take information that you did not create and represent that it is yours. Many words and images are protected by laws, so pay careful attention to which ones are. It is important to report who or what the original source is.

Is it all right to pretend to be somebody else when you're online? (Can a boy pretend to be a girl? Can children pretend to be older than they are?)
The online world allows you to create a special name that you can use, and helps children go online with a degree of anonymity. However, pretending to be something you are not in a way that deliberately misleads others who are presuming you are truthful is not all right.

It is important for you to talk with your children when these kinds of questions come up. They provide one of your best teaching tools. Since you're learning too, take the time to really discuss the tough questions and help your child to be a good citizen in cyberspace.

Etiquette Online: "Netiquette"

"Internet etiquette," called "netiquette," is also important for children and their parents to understand. There are widely accepted rules of behavior to follow when you're online, including (but not limited to):

- Don't TYPE ALL IN CAPITAL LETTERS for emphasis. IT LOOKS LIKE YOU'RE SHOUTING. If you need to emphasize a word, use asterisks, like *this.*
- Be polite. When you enter a chat room, wait awhile to find out what people are talking about before you participate. Be patient with newcomers.
- Be careful not to use rude or bad language online. Many providers will terminate your account.
- Be yourself. While it's tempting to become a new identity, netiquette means being yourself and letting others get to know you.

Sample online symbols called Emoticons

:-) = I'm happy; : -(= I'm sad; (:-& = I'm angry; :-O = I'm shouting.

Acronyms: BTW = By the way; OTOH = On the other hand; LOL = Laughing out loud.

There are hundreds of these symbols to use while online. You will see them as you spend time e-mailing, and most Internet guides will have a list of them (see Resources, Chapter IV).

Safe Traveling on the Information Superhighway: A Parent's Checklist

- ✔ Tap your **child's natural sense of wonder** and discovery and temper it with your **experience and counsel.**
- ✔ **Let your child take the lead,** but stay with him or her until you've decided the activity is appropriate.
- ✔ **Spend as much "cybertime"** with your child as you can.
- ✔ Provide your child with **clear, simple instructions** about how to avoid danger and what to do if something happens.
- ✔ **Set limits** appropriate to your child's age.
- ✔ **Talk to your child often** about his or her computer/online life.
- ✔ **Monitor, Monitor, Monitor** (time, phone bills, chat groups, and onscreen materials).
- ✔ Use online experiences as another way to **teach responsibility, good conduct, and values.**

CHAPTER III

Classrooms and Communities Online: Getting Involved

At School—Getting Involved with Technology

Schools are where many parents first encounter computers and online technology. More and more schools are getting connected to the information superhighway, as they acquire computers and get linked to the Internet. And because schools are located in every community and open to every child, they are the best way to ensure that every child gets the benefits of new technologies.

Schools that are using technology in education are blazing new, uncharted paths. Early studies of their educational results are encouraging. They show that computer-assisted learning can improve academic performance and can motivate students who have been hard to reach.[18] For example, computers and technology have shown very promising results in enabling students with disabilities to learn and communicate more successfully; they have also produced significant gains for students in isolated or rural areas.[19]

There are some simple ways you can begin to get involved at your child's school:

- Ask a teacher to set aside a time for you to come in and observe or join in on the computer with your child.
- Encourage your school to have a parents' night to see what the students are doing with computers and technology.
- Ask the principal to set up a meeting to talk with parents about the school's goals with technology.
- Find out whether your school has a **technology plan.** If so, become familiar with it. If not, identify which teachers are most interested and encourage them to develop a plan.
- Get involved with your PTA's technology committee.
- Volunteer in your school's computer lab or classes.

As you begin to get involved, remember you are probably not alone. Many telephone and cable companies have announced major initiatives to provide Internet connections to schools. Computer hardware and software companies are also donating significant amounts of equipment to schools. Many states and cities, professional associations, and civic groups are also getting involved with providing technology to schools.

PARENT STORIES

The 19 schools in Calvert County (a rural community in Southern Maryland) were like many other schools. They had no technology plan until business leaders, teachers, school board members, and others joined forces two years ago to design a five-year plan to benefit the students. They came up with a careful plan to surmount the difficult hurdles in connecting their students to the information superhighway—security, costs, classroom use, administrative use, parent skepticism, and a host of other issues. Once the vision was laid out, the resources followed.

The school board approved the plan and committed $100,000 to get it started. County residents approved a technology bond measure to pay for the mainframe computer—the central hub of the system. A local company stepped forward to pay for the dial-up service so that every school could be connected to the Internet. Then, when the governor announced a $53 million initiative to link Maryland's students to the information superhighway, Calvert schools were ready to implement their program and were recognized for their foresight and vision.

Schools and Technology

50%
of U.S. public schools have some access to the Internet.[20]

31%
of schools with a large proportion of students from poor families have access to the Internet, compared to 62% of schools with higher-income students.[21]

9%
of all public school instructional rooms have Internet access.[22]

Becoming a Technology Ally at Your Child's School—Some Tips

There are a variety of places parents can turn to get technical help as they work with their school on technology matters. Some written materials are listed in Chapter IV. In addition, your state department of education or school district office may provide useful materials or training. Also ask district office personnel whether there are companies or nonprofit organizations in your community that help schools design technology programs.

The following checklist for establishing a strong technology program at your child's school was developed based on a review of successful programs, with input from teachers, administrators, and parents.

Step 1: Building Readiness—What's Needed?

- Support from the principal and school district.
- A core of enthusiastic teachers.
- Training for teachers.
- A school culture that encourages ongoing reassessment of curriculum.
- A link to the library staff from the start.
- A core of enthusiastic and, ideally, experienced parents.
- Allies and sources of help from the start, including other schools, private sector mentors, nonprofit organizations, etc.
- A system for respectful, honest discussion of issues between teachers, administration, parents, and students.

Step 2: Designing and Introducing the Program—What's Needed?

- Clear educational vision for the school.
- Technology goals and a plan to help achieve the school's educational goals.
- Attention to how students will use the resources (collaborative projects, storage of their work, etc.).
- A systematic and thoughtful introduction of the technology plan to teachers and parents.
- Coordination, as needed, with the school district.
- A plan for paying for the wiring, computers, software, and online use.
- Smart decisions about wiring, computers, programs, etc.
- Involving parents and students in designing the plan (bringing parents in early helps build a strong parent/school relationship).
- Involving students in the planning process.

Step 3: Keeping the Technology Program Up to Speed—What's Needed?

- Ongoing discussion and evaluation of the technology activities (involving administration, teachers, parents, students, and staff).
- Ongoing professional development, technical assistance, and troubleshooting.
- Resourcefulness in generating funds to maintain and upgrade the program.
- An entrepreneurial team to forge alliances with corporations and other needed resources.
- Regular checks to be sure the program meets educational goals.

Acceptable Use Policies

Many state departments of education and local school districts have recommended that schools develop a contract with every student using online services at school to insure they are using the information superhighway appropriately. Called Acceptable Use Policies, these contracts encourage responsible behavior by students and give teachers enforceable rules; for example:

- The network should be used in a way that is consistent with the school's code of conduct.
- Students should share the system and be careful not to monopolize it.
- The network should be used for educational purposes (e.g., students should avoid placing commercial advertising online without permission).

The policies also ban illegal activity like:

- Selling drugs or other illegal materials online;
- Using copyrighted material without permission;
- Using networks to view indecent or obscene materials;
- Creating or distributing computer viruses;
- Using somebody else's name or code number to send or receive messages;
- Sending racist, sexist, inflammatory, or obscene messages; and
- "Hacking" of any kind.

Failure to abide by the rules can result in suspension of computer privileges or even prosecution.

The Home-School Connection

The home-school connection is at the heart of a successful educational system. Take the time to keep up with what your child is doing at school. Go to parent-teacher meetings. Ask what your child is doing on computers at school. If there is a hookup between your home computer and the school network, be sure you use it to keep up with school announcements and to communicate with teachers. E-mail can make it easier to leave messages with other parents or teachers about the school and your child's activities.

Stay Involved

Developing a state-of-the-art technology program for your child at school takes time and persistence. Expect lots of roadblocks and doubtful colleagues along the way. Set short-term goals you can meet but also expect to be working on achieving your goals for a number of years.

Helping Ensure That All Children Have an On-Ramp

In-Home Access—Haves and Have-Nots

Households with annual incomes of $25,000-$34,000 with personal computers, 1995: **23%**[23]

Households with annual incomes of $35,000-$45,000 with personal computers, 1995: **39%**[24]

Households with annual incomes of over $45,000 with personal computers, 1995: **47%**[25]

Households with annual incomes of over $60,000 with personal computers, 1995: **66%**[26]

The Public Policy Arena

Elected and appointed officials—on the school board or at the city, county, state, and federal levels—all make many important decisions that influence whether or not children will have access to the information superhighway. These public policy decisions will determine whether new information technologies are available to all children, or primarily to those kids whose parents can afford to personally buy the technology.

State legislators, for example, decide how much of the state budget to allocate for school technology programs. Members of the state public utilities commission determine the community obligations that should be carried out by the companies they regulate, such as telephone companies. Federal officials at the Federal Communications Commission decide how to provide "universal service" in the telecommunications arena, including the discount that schools and libraries will receive. And school board members decide what competencies their graduates should have, such as computer literacy.

Get Involved

As concerned citizens, parents can join forces and have a significant influence on the outcome of these important decisions. There are groups around that can help you find out what decisions are being made and what actions you can take to make a difference. (See Resources, Chapter IV of this Guide, to get started.)

It can be a fun and educational experience to research important issues of the day on the Internet, with your child, then e-mail decision-makers with your thoughts. For example, contact the Federal Communications Commission, using the address listed in the Resources Chapter of this Guide. On their Web site, under "Education and the Internet," there is a good briefing on current issues, key dates, and how your child can actually get involved.

Since schools are the best way to make sure all children have access to technology, one valuable place to start is to find out how your state stacks up with the number of students per computer in school. Chart A shows these averages by state for each of the 50 states. As taxpayers, parents can command attention and should contact members of the state legislature and local school boards to make the case, where necessary, for increased investment in school technology.

Why It Matters

Parents can be an especially powerful force in the decisions made around the information superhighway because children are its first travelers. In addition, if parents joined together—all 63 million of us—your views would matter a great deal to officials concerned with their reelection.[27]

With clear and vigorous leadership from parents, we can all help assure that decisions will be guided by what's best for children and families.

CHART A

Average Number of Students per Computer by States, 1995

Data source: Quality Education Data, Technology in Public Schools, 1993-1995. Prepared by John Cradler for the National Coalition for Technology in Education and Training (NCTET) and Far West Labs.

National Data	U.S.
National Average Students per Computer	10.5
Percent New Computers	24.8

The map shows the data for each state.

BEST COPY AVAILABLE

CHAPTER IV

Resources

APPENDIX A: RESOURCES FOR FURTHER HELP

Below is a starter list of printed materials, organizations, and other places you can turn to for help. These are some of the resources we found most helpful, though there are many others.

Books/Manuals

America's Children & The Information Superhighway. The Children's Partnership, 1994 and 1996 Update (48 pages. $10.00. Write: 1460 4th Street, Suite 306, Santa Monica, CA 90401). An overview of how the information superhighway and related technologies affect children—in terms of job preparation as well as life at home, at school, and in the community.

Child Safety on the Information Superhighway. National Center for Missing and Exploited Children, 1994 (10 pages. Write or call: 2101 Wilson Boulevard, Suite 550, Arlington, VA 22201-3052; (703) 235-3900). A brochure explaining the risks to children on the Internet and guidelines for avoiding them.

Everything You Need to Know (But Were Afraid to Ask Kids) About the Information Highway. Merle Marsh, Computer Learning Foundation, 1995 (102 pages. Write or fax: P.O. Box 60967, Palo Alto, CA 94306; FAX (415) 327-3349). A book describing what the information superhighway is, how it can benefit children and families, and suggested activities for children of different ages.

The Internet Kids Yellow Pages. Jean Armour Polly, Osbourne McGraw-Hill, Berkeley, CA 1996 (355 pages. $19.95. Available at bookstores). A compendium of resources for children on the Internet, selected by a librarian.

Leadership & Technology: What School Board Members Need to Know. National School Boards Association, 1995 (179 pages. $35.00. Write or call: NSBA Distribution Center, P.O. Box 161, Annapolis Junction, MD 20701-0161; (800) 706-6722; FAX (301) 604-0158). A book that provides answers to important questions about technology planning, designed to help school board members with the development of technology plans.

Making the Net Work for You: How to Get the Most Out of Going Online. Interactive Services Association and National Consumers League, 1996 (15 pages. Write or call: 8403 Colesville Road, Suite 865, Silver Spring, MD 20910; (301) 495-4955). A short, practical guide about how to help ensure that online activities are inviting, rewarding, and secure places to visit.

Web of Deception, Threats to Children from Online Marketing. Center for Media Education, 1996 (33 pages plus extensive attachments. $25.00. Write, call or fax: 1511 K Street, NW, Suite #518, Washington, DC 20005; (202) 628-2620; FAX (202)-628-2554). An analysis of marketing practices now used online, including samples of those available to or directed at children.

Nonprofit Organizations

American Library Association
The association provides leadership and support for more than 100,000 school, public, academic and special libraries through a broad-based program of legislative advocacy, public awareness and professional education. Its mission is to promote the highest quality library services in order to ensure that all people have access to the information they need. "Kids connect @ The Library" is the message for a campaign to inform parents of how libraries can help connect their children with ideas, learning and fun through computers, books, and other resources.
50 E. Huron Street
Chicago, IL 60611
(312) 280-5044
http://www.ala.org

Benton Foundation Communications Policy Project
This project provides briefing materials designed to strengthen public interest advocacy in communications policy and serves as a clearinghouse for nonprofits working to shape the National Information Infrastructure.
1634 Eye Street, NW, 12th Floor
Washington, DC 20006
(202) 638-5770
benton@benton.org
http://www.benton.org

Center for Children and Technology
The Center aims to improve education by altering the circumstances of teaching and learning through basic, applied, and formative research and technology development. Much of its work is done in collaboration with schools, universities, libraries, community programs, museums, and other institutions concerned with learning, teaching, and technology design.
96 Morton Street, 7th Floor
New York, NY 10014
(212) 807-4200
cct@edc.org
http://www.edc.org/CCT/ccthome

(continued)

The Center for Democracy and Technology
The Center's mission is to develop public policies that preserve and advance democratic values and constitutional civil liberties on the Internet and other interactive communications media. CDT relies on a combination of staff expertise in relevant law and technology, along with a unique consultation process that brings together diverse interests from across the political spectrum, the public interest community, and the communications industry to address critical public policy issues.
1634 Eye Street, NW, Suite 1100
Washington, DC 20006
(202) 637-9800
info@cdt.org
http://www.cdt.org

Center for Media Education
The Center educates the public about critical media policy issues. CME publishes InfoActive, a telecommunications bulletin for nonprofits.
1511 K Street, NW, Suite 518
Washington, DC 20005
(202) 628-2620
cme@cme.org
http://www.cme.org/cme

Center for Media Literacy
The Center for Media Literacy is a nonprofit, membership organization dedicated to a media literate citizenry. The center is the largest distributor of media literacy resource materials in North America, and conducts workshops and seminars in media literacy for teachers and parents in the Los Angeles area.
4727 Wilshire Boulevard, Suite 403
Los Angeles, CA 90010
(213) 931-4177
cml@earthlink.net
http://websites.earthlink.net/~cml

The Children's Partnership
The Children's Partnership educates policymakers and parents about technology issues affecting children. It also publishes briefing materials and operates a Web site for parents.
1460 4th Street, Suite 306
Santa Monica, CA 90401
(310) 260-1220
kidspartner@earthlink.net
http://www.childrenspartnership.org

Community Technology Centers' Network
CTCN serves as a catalyst to strengthen community involvement with technology. It is creating an actual and electronic national affiliates' network of computer access and learning centers in resource-poor communities.
c/o Education Development Center, Inc.
55 Chapel Street
Newton, MA 02158
(617) 969-7100
ctcnet@edc.org
http://www.edc.org

The Electronic Frontier Foundation
The Electronic Frontier Foundation seeks to find out how and to what extent new digital media fits into existing frameworks. While the free flow of information is generally a positive thing, serious problems can arise. Problems such as how to protect children and undesiring adults from exposure to sexually explicit or potentially offensive materials; how to protect intellectual property rights; how to determine which country's laws have jurisdiction over a medium that is nowhere and everywhere at the same time, and other difficult questions are the purview of this group.
1550 Bryant Street, Suite 725
San Francisco, CA 94103
(415) 436-9333
eff@eff.org
http://www.eff.org

KIDSNET
KIDSNET is an educational nonprofit clearinghouse of information on children's media. The group generates a monthly database of audio, video, radio, educational software, television, and related multimedia programs for children which is available in both print and electronic formats.
6856 Eastern Avenue, NW, Suite 208
Washington, DC 20012
(202) 291-1400
kidsnet@aol.com

LatinoNet
LatinoNet is a computer online system designed to meet the unique needs of Latino nonprofit agencies and individual professionals.
2601 Mission Street
San Francisco, CA 94110
(415) 550-2493
latinonet@aol.com
http://member.aol.com/lnet03/latinonet/ln.welcome.html

National Parent Information Network
NPIN provides an extensive library of family involvement resources available over the Internet, including PARENTS askERIC, a question-answering service that links parents with experts.
(800) 583-4135
ericeece@ux1.cso.uiuc.edu
http://ericps.ed.uiuc.edu/npin/npinhome.html

National Council of La Raza
The National Council of La Raza (NCLR), the nation's largest Hispanic constituency-based organization, is a private, nonprofit organization representing over 200 community-based groups which provide housing, education, employment, immigration, and social services to more than two million Hispanics annually. NCLR furthers its goal of improving life opportunities for Hispanic Americans through capacity-building assistance to community organizations, and through applied research, policy analysis, and advocacy.
1111 19th Street, NW, Suite 1000
Washington, DC 20036
(202) 785-1670
http://www.erols.com/aperilla

National PTA
The National PTA is the oldest and largest volunteer association in the United States working exclusively on behalf of children and youth. For 100 years, the National PTA has promoted the education, health, and safety of children and families.
330 North Wabash Avenue, Suite 2100
Chicago, IL 60611-3690
info@pta.org
(312) 670-6782
http://www.pta.org

National School Boards Association
The National School Boards Association supports school boards in their work to introduce technology in schools. The association publishes guides and resource materials.
1680 Duke Street
Alexandria, VA 22314-3493
(703) 838-6722
itte@nsba.org
http://www.nsba.org/itte

National Urban League
The National Urban League is the premier social service and civil rights organization in America. The League is a nonpartisan, community-based organization headquartered in New York City, with 114 affiliates around the country. The mission of the League is to assist African-Americans in the achievement of social and economic equality. The League implements its mission through advocacy, bridge building between the races, program services, and research.
500 East 62nd Street
New York, NY 10021
(212) 310-9000
info@nul.org
http://www.nul.org

Project OPEN
Project OPEN is a joint effort of the National Consumers League, the Interactive Services Association, and leading online/Internet service companies. Its primary mission is to help the American public learn how to use online and Internet services in an informed and responsible way.
c/o Interactive Services Association
8403 Colesville Road, Suite 865
Silver Spring, MD 20910
(301) 495-4955
project-open@isa.net
http://www.isa.net/project-open

Federal Government

U.S. Department of Education, Office of Educational Technology
The U.S. Department of Education seeks to ensure equal access to education and to promote educational excellence. The Office of Educational Technology publishes guides and distributes information about online learning and technology.
600 Independence Avenue, SW
Washington, DC 20202
(202) 401-1444
http://www.ed.gov

Federal Communications Commission
The Federal Communications Commission (FCC) is the federal body that regulates telecommunications. The FCC oversees important issues such as the pricing structure for delivering new technologies to the nation's schools, libraries and other entities. The FCC encourages parents and citizens to become involved in these important regulatory proceedings.
1919 M Street, NW
Washington, DC 20054
(202) 418-0200
fccinfo@fcc.gov
http://www.fcc.gov

APPENDIX B: GLOSSARY

BBS
"Bulletin-Board System." A central computer that you can connect to over a phone line using your own computer and **modem.** Most BBSs offer files, programs, and other information that you can download to your own computer, and some enable you to send **e-mail** and communicate with other users who are connected at the same time.

BROWSER
A software program that lets you find, see, and hear material on the **World Wide Web,** including text, graphics, sound, and video. Popular browsers are Netscape, Mosaic, and Microsoft's Internet Explorer. Most **commercial services** have their own browsers.

CD-ROMs
A computer disk that can store large amounts of information and is generally used on computers with CD-ROM drives. CD-ROM stands for Compact Disk Read Only Memory. That means it can only play back information, not record or save material.

CHAT GROUPS
Also called discussion groups. They allow users to communicate with each other in "real time" (or "live"), as opposed to delayed time as with e-mail. A user enters a chat room, types a message into the computer, and sends it, and it is instantly displayed to other users in the room. Chat rooms are usually defined by topic. Admission to chat rooms is generally not restricted. You never know who's going to be reading your messages or responding to them, so it is best to be cautious.

COMMERCIAL SERVICE
General term for large **online** services (e.g., America Online, CompuServe, Microsoft Network, Prodigy, GEnie). These services are like special clubs which require membership dues. They have lots of information attractively organized, and lots of other members that may make chat groups more interesting. Many also offer access to the Internet.

CYBERSPACE
General term used to refer to the electronic "areas" and communities existing on the **Internet** and other computer networks, as well as to the culture that is developing around them.

E-MAIL
"Electronic Mail." A way of sending messages electronically from one computer to another. Users can send memos, letters, and other word-based messages, as well as **multimedia** documents. This requires having a modem and telephone line connected to your computer.

FAQ
"Frequently Asked Questions." A file of questions and answers compiled for **Web sites,** mailing lists, and games to reduce repeated **posts** about commonplace subjects.

FREENET
A community network that provides free online access, usually to local residents, and often includes its own forums and news

HARDWARE
The nuts, bolts, and wires. The actual computer and related machines.

(continued)

HOME PAGE
The site that is the starting point on the **World Wide Web** for a particular group or organization.

HTML
(Hypertext Markup Language): A document format used on the World Wide Web. Text documents must be converted to HTML in order to be readable on the Web.

HYPERLINK (like HYPERTEXT)
An easy method of retrieving information by choosing highlighted words in text on the screen. The words link to documents with related subject matter.

INFORMATION LITERACY
The ability to find, process, and evaluate the information individuals need to be lifelong learners equipped for the workplace in the Information Age. As information increasingly is stored and transmitted electronically, information technology skills are becoming more important.

INFORMATION SUPERHIGHWAY (ISH)
A term popularized by Vice President Al Gore. The information superhighway is envisioned as a global high-speed network of computers that will serve thousands of users simultaneously, transmitting e-mail, multimedia files, voice, and video. This system is expected to link homes, offices, schools, libraries, and medical centers, so that textual and audiovisual information can be instantly accessed and transmitted from one computer screen to another. (See NII.)

INTERNET
The largest network of computer networks in the world, easily recognizable by the format of Internet e-mail addresses such as parent@earthlink.com.

ISP
Internet Service Provider. A generic term for any company that can connect you directly to the Internet, usually for a modest fee (under $20 per month). Distinguished from the commercial providers which link to the Internet, but also offer additional services such as travel and ticketing services, reference materials, etc.

MODEM
Short for "modulate-demodulate," a device which allows computers to communicate with each other over telephone lines or other delivery systems. Modems change digital signals to telephone signals for transmission and then back to digital signals. Modems come in different speeds: the higher the speed, the faster the data is transmitted. The fastest commercially available modems are 28.8 baud.

MOUSE
A small device attached to your computer by a cord, which lets you give commands to the computer.

MULTIMEDIA
A combination of two or more types of information such as text, audio, video, graphics, and images.

NET, THE
A colloquial term that is often used to refer to the entirety of **cyberspace,** the Internet, commercial services, **BBSs,** etc.

NETIQUETTE
The rules of cyberspace civility. Usually applied to the Internet, where manners are enforced exclusively by fellow users.

NII
"National Information Infrastructure." The U.S. Government's official term for the **"information superhighway."** In some ways, "infrastructure" is a more accurate description of a wired, interconnected world than the more linear "superhighway."

ONLINE COMMUNICATION
Communicating over the Internet or through a commercial network, usually via a telephone line.

POSTING
The sending of a message to a newsgroup, BBS, or other public message area. The message itself is called a post.

SEARCH ENGINE
A program that performs keyword searches for information on the Internet.

SERVER
A host computer that stores information and/or software programs and makes them available to users of other computers.

SOFTWARE
A computer program; loosely defined, a set of instructions to be used on your **hardware.** There is "system software" that operates the machine itself, which is invisible to the user, and there is "application software" for specific uses—e.g., word processing, games, spreadsheets.

TECHNOLOGY PLAN
A blueprint that guides the building of a technology program in a school or district.

URL
"Uniform Resource Locator." The World Wide Web address of a site on the Internet. For example, the URL for the White House is http://www.whitehouse.gov.

USERID (or User ID)
The unique name given to a user on a system for his or her account. The complete address can be used for e-mail (e.g., Bill Clinton's address is president@whitehouse.gov).

WEB SITES
A location on the World Wide Web that incorporates graphics, sounds, and links to other sites. Web sites are identified by an online address.

WORLD WIDE WEB
A **hypertext**-based navigation system on the Internet that lets you browse through a variety of linked resources, using typing commands. Also known as WWW and the Web.

Sources:

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FOOTNOTES

[1]Interview with Neal Rosenthal, Chief, Division of Occupational Outlook, Department of Labor.

[2]Mandel, "The Digital Juggernaut." *Business Week*/The Information Revolution, 1994.

[3]Interview with Diana Simeon, Jupiter Communications, June 28, 1996.

[4]National Center for Educational Statistics, *Survey of Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, 1995*, February, 1996.

[5]Microsoft/Intelliquest, *National Computing Survey*, January 1995, p. 83.

[6]This information was drawn from interviews with experts conducted by The Children's Partnership and from *Everything You Need to Know (But Were Afraid to Ask Kids) About the Information Highway*, by Merle Marsh, Ed.D., Computer Learning Foundation, 1995.

[7]See, for example, *Kids First Directory*, Coalition for Quality Children's Video. For membership information, contact the Coalition at 535 Cordova Road, Suite 456, Santa Fe, NM 87501, (505) 989-8076. Also see *The Computer Museum Guide to the Best Software for Kids*, by Cathy Miranker and Alison Elliott, Harper Perennial, 1995. Available from bookstores.

[8]See, for example, Times Mirror Center for The People & The Press, *Technology in the American Household: Americans Going Online...Explosive Growth, Uncertain Destinations*, October 1995; the National Science Foundation; and Anderson, *Computers in American Schools 1992: An Overview*, 1993.

[9]"Radio and Television Broadcasting," *The Grolier Multimedia Encyclopedia*.

[10]Survey conducted by Find/SVP and Grunwald Associates, reported in the United States Advisory Council on the National Information Infrastructure, *KickStart Initiative: Connecting America's Communities to the Information Superhighway*, January 1996, p. 22.

[11]Times Mirror Center for The People & The Press, ibid., p. 1.

[12]Ibid., p. 4.

[13]See, for example, *Infoactive*, September/October 1995, Center for Media Education; "Do Your Homework," *Wall Street Journal*, March 28, 1996; Family PC, February 1996; *CompuServe Magazine*, December 1995; *Internet Kids Yellow Pages*, Jean Armour Polly, Osbourne McGraw-Hill, 1996. Some resources like *The Scout Report*, a publication of Net Scout Services Computer Science Department, University of Wisconsin; they also have a Web site (http://rs.internic.net/scout/report).

[14]"Big Allowance," *Interactive Marketing News*, November 10, 1995; "Teens Spend Money—Their Family's and Their Own," *Youth Markets* ALERT, March 1996.

[15]See *Web of Deception: Threats from Online Marketing*, a special report by the Center for Media Education, 1996. Available for $25 from the Center for Media Education, 1511 K Street, NW, Suite #518, Washington, DC 20005, (202) 628-2620.

[16]Ibid.

[17]One product, called WebFilter, has been created to block ads online; however, it can only screen out ad banners and cannot identify commerical messages that are merged with content. For the more experienced online users, this product can be downloaded from the Internet.

[18]See, for example, U.S. Advisory Council on the National Information Infrastructure, op. cit., pp. 33 and following.

[19]Ibid., pp. 34 and 42.

[20]National Center for Education Statistics, 1996, op. cit., p. 3.

[21]Ibid.

[22]Ibid.

[23]IDC/LINK 1995 Home Media Consumer Survey, Interview by The Children's Partnership, December 28, 1995.

[24]Ibid.

[25]Ibid.

[26]Ibid.

[27]U.S. Census, "Household and Family Characteristics," pp. 20-483, Steve Rawlings and Arlene Saluter, 1994. Figure includes parents in two-parent family groups as well as one-parent family groups.

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